

Bacterial Leaf Spot of Crown-of-Thorns

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Crown-of-thorns, *Euphorbia milii* Ch. des Moulins, is a tender semi-evergreen which is widely grown in South Florida. It flowers freely throughout the year but more abundantly during the winter. The leaves are sparse on this thorny plant, and the flowers are arranged in long-stalked clusters surrounded by red bracts. The plant is used in border plantings, in rock gardens and planter boxes, and as specimen plants (2).

Bacterial leaf spot, caused by *Xanthomonas poinsettiae* Patell, was first found on crown-of-thorns in Florida in 1966 (1) and has become a common and serious disease. The disease is characterized by circular gray to brown leaf spots surrounded by distinct yellow halos. The infected leaves often turn yellow and fall off the plants (3). These leaf spots and sparse foliage make the plants unsightly and unsalable.

Poinsettia (*Euphorbia pulcherrima* Willd.) and wild poinsettia (*Euphorbia heterophylla* L.) are also hosts and the disease may be transmitted readily from one to the other. The bacteria are spread by splashing rain or overhead irrigation and also by diseased cuttings.

CONTROL. Disease control is best attained by using disease-free cuttings, removing diseased leaves or plants when they are found, and keeping the leaves as dry as possible. Agri-strep at 200 ppm streptomycin sulfate or



Fig. 1. *Xanthomonas poinsettiae* on crown-of-thorns displaying brown leaf spots surrounded by irregular yellow halo.

copper-maneb at 1 ½ lbs Kocide 101 + 1 ½ lb Dithane M-45 in 100 gal water are suggested as protective sprays, but they may be only partially effective in controlling the disease (3).

Literature Cited

1. Bureau of Plant Pathology (Plant Disease Records), Division of Plant Industry, Fla. Dept. Agr. and Consumer Services, Gainesville (Unpublished),
2. Bush, C. S. 1969. Flower, shrubs, and trees for Florida homes. Fla. Dept. Agr. and Consumer Services Bull. 195. 179 p.
3. Miller, J. W., and C. P. Seymour. 1972. A comparative study of *Corynebacterium poinsettiae* and *Xanthomonas poinsettiae* on poinsettia and crown-of-thorns. Proc. Fla. State Hort. Soc. 85:344-347.